AMENDMENTS TO THE CLAIMS

1.   (Original)   A method of altering an image representation to adjust for artifacts attributable to an array lens, the method comprising:

obtaining a characterization at selected locations across the array lens;

from the characterization, determining compensation parameters for a plurality of locations across the array lens; and

storing the determined compensation parameters.

2.   (Original)   The method as set forth in claim 1, wherein the artifacts attributable to the array lens are induced during image scan using the array lens, resulting in an electronic image representation including the artifacts, the method further comprising:

applying the compensation parameters to the electronic image representation including the artifacts, resulting in a post-compensated electronic image representation.

3.   (Original)   The method as set forth in claim 1, wherein the artifacts attributable to the array lens are induced during image output using the array lens, the method further comprising:

applying the compensation parameters to an electronic image representation without the artifacts, resulting in a pre-compensated electronic image representation.

4.   (Original)   The method as set forth in claim 1, wherein the obtaining a characterization step comprises:

measuring optical performance of the array lens at a plurality of locations across the array lens.

5.   (Original)   The method as set forth in claim 1, wherein the obtaining a characterization step comprises:

estimating optical performance of the array lens at a plurality of locations across the array lens.

6.   (Original)   The method as set forth in claim 1, wherein the obtaining a characterization step comprises:

measuring optical performance of the array lens at at least one location on the array lens; and

estimating optical performance of other locations on the array lens based on the measurements.

7.   (Currently Amended)   ~~The~~ A method of altering an image representation to adjust for artifacts attributable to an array lens~~as set forth in claim 1~~, the method ~~further~~ comprising:

obtaining a characterization at selected locations across the array lens;

from the characterization, determining compensation parameters for a plurality of locations across the array lens;

storing the determined compensation parameters; and

applying the compensation parameters to the image representation with an iterative restoration method selected from the set of ML-EM method, sharpening filters, windowed-wiener spectrum technique and spatial convolution.

8.   (Original)   An imaging apparatus comprising:

at least one light source;

an array lens which focuses emitted light from the light source onto a desired receptor, the array lens inducing artifacts in an image representation on the receptor;

a memory which stores a plurality of parameters to compensate for the array lens induced artifacts; and

a processor which applies the compensation parameters, resulting in a compensated image representation.

9. (Original) The imaging apparatus as set forth in claim 8, wherein:

the imaging apparatus employs the array lens to acquire an image representation from a physical image, thereby inducing artifacts in the image representation, and

the processor applies the compensation parameters to the image representation including the artifacts, resulting in a post-compensated image representation.

10. (Original) The imaging apparatus as set forth in claim 8, wherein:

the imaging apparatus employs the array lens to produce a physical image from a desired image representation, and

the processor applies the compensation parameters to the desired image representation, resulting in a pre-compensated image representation.

11. (Original) The imaging apparatus as set forth in claim 8, wherein the array lens comprises a plurality of adjacent rods arranged in a one-dimensional array.

12. (Original) The imaging apparatus as set forth in claim 8, wherein the array lens comprises a plurality of adjacent rods arranged in a two-dimensional array.

13. (Original) A digital imaging method comprising:

determining an error attributable to at least one selected coordinate on an array lens;

scanning a physical image using the array lens with the determined error, resulting in an image representation including artifacts; and

compensating for the determined error in the scanned physical image, resulting in a post-compensated image representation.

14. (Original) The digital imaging method as set forth in claim 13, wherein the determining an error step comprises:

measuring errors induced by the array lens at selected locations relative to the array lens.

15. (Original) The digital imaging method as set forth in claim 13, wherein the compensating step comprises:

altering the image representation to adjust for spatially varying errors induced by the array lens.

16. (Original) A digital imaging method comprising:

determining an error attributable to at least one selected coordinate on an array lens;

receiving a desired image representation;

compensating for the determined error in the image representation resulting in a pre-compensated image representation; and

outputting the pre-compensated image representation on a physical media.

17. (Original) The digital imaging method as set forth in claim 16, wherein the determining an error step comprises:

measuring errors induced by the array lens at selected locations relative to the array lens.

18. (Original) The digital imaging method as set forth in claim 16, wherein the compensating step comprises:

altering the image representation to adjust for spatially varying errors induced by the array lens.